<u>IN THE CLAIMS</u>

Please amend the claims as follows:

1. (original)  A device for parallel data processing, characterized in that the device comprises at least one matrix of processors arranged in rows and columns, first additional data ports located outside the matrix and second additional data ports located outside the matrix, in which

-       the rows are arranged in a stepwise fashion relative to one another,

-       the columns are arranged in a stepwise fashion relative to one another,

-       processors have a first processor data port which is connected with one of the first external data ports by means of a first at least straight connection,

-       processors have a second processor data port which is connected with one of the second external data ports by means of a second at least essentially straight connection, in which the second at least essentially straight connection is oriented at least essentially orthogonal to the first at least essentially straight connection.

2. (original) A device as claimed in claim 1, characterized in that the device comprises a first data buffer for data storage which buffer has first buffer data ports of which at least one data port is connected with one of the first external data ports by means of an at least essentially straight third connection which is a continuation of the first connection.

3. (original) A device as claimed in claim 2, characterized in that the first data buffer is split up into two physically separated parts of which a first part is positioned close to the first row of processors in the processor matrix and a second part is positioned close to the last row of processors in the processor matrix.

4. (currently amended) A device as claimed in claim 1, 2 or 3, characterized in that the device comprises a second data buffer for data storage which has second buffer data ports, of which buffer data ports at least one is connected with one of the second external data ports by means of a fourth at least essentially straight connection which is a continuation of the second connection.

5. (original) A device as claimed in claim 4, characterized in that the second data buffer is split up into two physically separated parts of which a first part is positioned close to the first column of processors in the processor matrix and a second part is positioned close to the last column of processors in the processor matrix.

6. (original) A device as claimed in claim 1, characterized in that processors have a first primary processor data port and a first secondary processor data port in which the first primary processor data port is formed by the first processor data port and the first primary processor data port of at least one of the processors is also connected with the first secondary processor data port of another processor via the first connection.

7. (original) A device as claimed in claim 6, characterized in that the first primary processor data port and the first secondary processor data port of processors are arranged for receiving data from one of the first external data ports.

8. (original) A device as claimed in claim 7, characterized in that the processors are arranged for processing a series of data

elements, in which processors are arranged for processing at least
one data element from the series of data elements.

9. (original) A device as claimed in claim 8, characterized in
that processors have a second secondary processor data port, in
which the primary processor data port is connected for receiving a
data element to be processed from the series of data elements from
one of the first external data ports and is connected with the
second secondary processor data port of the processor that
processes the element preceding the data element in the series of
data elements and is also connected with the first secondary
processor data port of the processor that processes the data
element succeeding the data element in the series of data elements.

10. (currently amended) A device as claimed in claim 6, 7, 8 or
9, characterized in that processors have a second primary processor
data port and a third secondary processor data port, the second
primary processor data port being formed by the second processor
data port, the second primary processor data port of at least one
of the processors also being connected with the third secondary
processor data port of another processor via the second connection.

11. (original) A device as claimed in claim 10, characterized in that the second primary processor data port and the third secondary processor data port is arranged for receiving data from one of the second external data ports.

12. (currently amended) A camera system comprising a sensor matrix built up from rows and columns for converting incident electromagnetic radiation into pixel signals, means for converting pixel signals into data and a device comprising processors for parallel data processing as claimed in ~~one of the claims 1 to 11~~claim 1.

13. (original) A camera system as claimed in claim 12, characterized in that the sensor matrix comprises a color filter matrix and in which processors are arranged for processing data from a plurality of elements of the sensor matrix, which data contains color information of various colors of the color filter matrix.